

# Diversification of natural gas supply sources and transmission routes in Central, South-Eastern Europe & the Balkans



27ο Εθνικό Συνέδριο «Ενέργεια & Ανάπτυξη 2023»

Νοέμβριος 2023

# Through its strategic position and investments, DESFA acts as a diversifying natural gas sources gateway to SEE, Central Europe and Balkans transmission system



## Greek natural gas transmission system

## Key points of Greek Gas System

### ILLUSTRATIVE MAP



● Entry point ● Exit point ● Entry-exit point

### Existing entry – exit points of NGTS

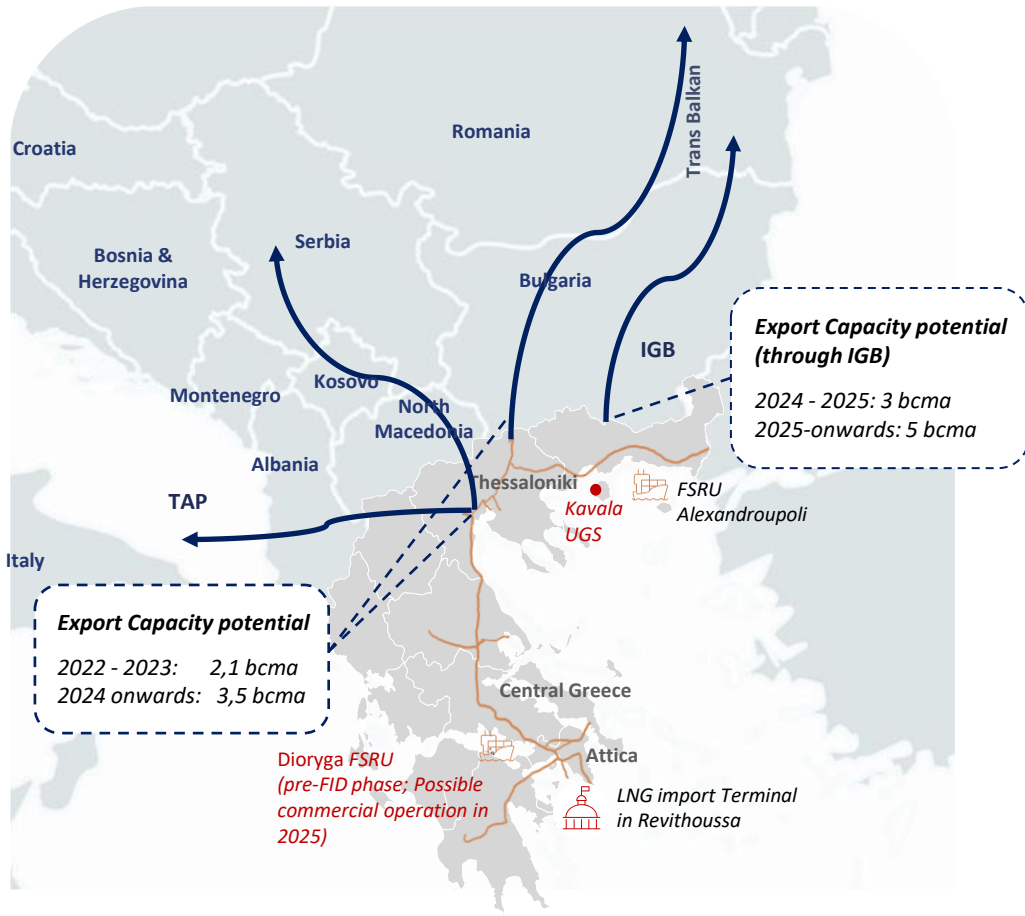
- 1 Revithousa LNG terminal
- 2 Nea Mesimvria (TAP)
- 3 Kipi (BOTAS)
- 4 Sidirokastron (BTG)
- 5 Komotini (ICGB)<sup>1</sup>

### Interconnection with other systems and FSRUs

- 1 FSRU Thessaloniki
- 2 FSRU Alexandroupolis<sub>2</sub>
- 3 FSRU Dioriga Gas
- 4 Argo FSRU
- 5 ICGB
- 6 TAP Duplication Capacity

**Note:** <sup>1</sup>The exported capacity of 124.7 GWh/ day regards route from Gastrade <sup>2</sup>FSRU Alexandroupoli refers to Gastrade entry point with import capacity of 148.4 GWh/ day as per 2024

# DESFA's investment plan to accommodate regional market needs is in line with the RepowerEU targets for security & diversification of supplies and with Greece's role as an EU energy gateway



All new pipeline projects are 100% ready to transfer pure hydrogen

## Key highlights

### As-is status (September 2023)

- 2 connections to Bulgaria – **ICGB from October '22**; however, currently gas can flow to Bulgaria, only through Sidirokastro; IGB sends 1bcm of gas to Bulgaria through TAP
- Current **firm import** capacity: **12.5 bcma** & current **firm export** capacity: **2.1 bcma**
- **1 LNG import Terminal (Revithoussa), FSRU Alexandroupolis under construction**
- **Dioryga FSRU** in pre-FID status, while another 2 FSRUs under assessment (in Volos and Thessaloniki)

### Short-term ('24-'25)

- 3 bcma supply from FSRU Alexandroupolis to IGB from Jan '24
- When CS Ampelia and CS Komotini become operational (Oct '24):
  - firm export capacity: 3.5 bcma (from NNGTS to all IPs)
  - Up to 5bcma to IGB from Mid 2025, so **total export Capacity from NNGTS to reach 8.5 bcma in 2025**
- Booster compressor for TAP in Nea Messimvria to operate by mid '25 enabling physical gas flows of up to 3 bcma to TAP (to Italy and/or Bulgaria via ICBG)
- Greece - North Macedonia interconnection is expected to operate by mid 25; initial capacity ca. 1bcma, expandable to 3bcma (Western Balkans)

### Mid-to-long term ('26-onwards)

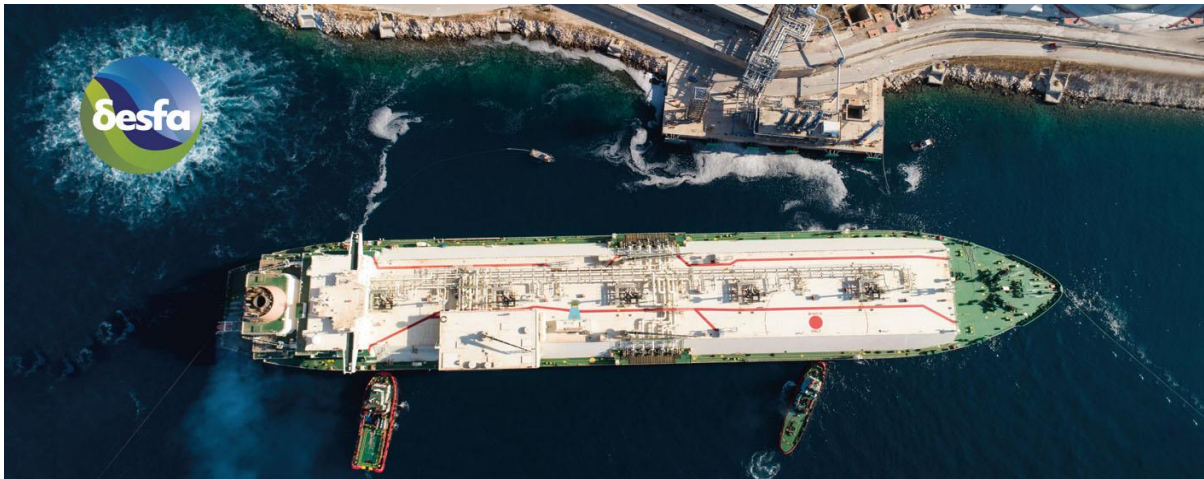
- Duplication of HP branch Karperi – Komotini **increasing firm capacity from VTP to IGB up to 2bcma**; jointly with below duplications firm capacity from Eastern points towards the VTP could be increased
- Duplication of HP branch Patima - Livadia, **allowing firm capacity to Dioryga FSRU, subject FID of the FSRU**

# The capacity auctions '23 show appetite for capacity bookings highlighting the importance for system upgrade to remove congestions & unlock export opportunities



## Key Highlights of the capacity auctions 2023

- All Entry/ Exit IPs are almost fully booked according to the results of the current capacity auctions '23.
- Sidirokastro remains the gas export gateway to the South-Eastern European (SEE) countries
- **The total entry capacity that was offered at Nea Mesimvria for the year 2023/2024 was booked at a premium of 104%**
- **The coordination among TSOs, governments and Regulators of the capacity reservations in all the systems connected to DESFA's network is of utmost importance**
- The remaining available capacity at the LNG Entry Point (Agia Triada) for 2024 will be auctioned in October 2023, therefore additional capacity bookings are expected
- Following the approval of the Regulatory Authority for Waste, Energy and Water (RAWEW) on the corresponding **amendments of the Network Code, DESFA launches LNG auctions with a horizon of up to 15 years (2024-2038) for the Revithoussa LNG Terminal** vs five years



**VIRTUAL WORKSHOP**

# LNG AUCTIONS FOR 2024-2038

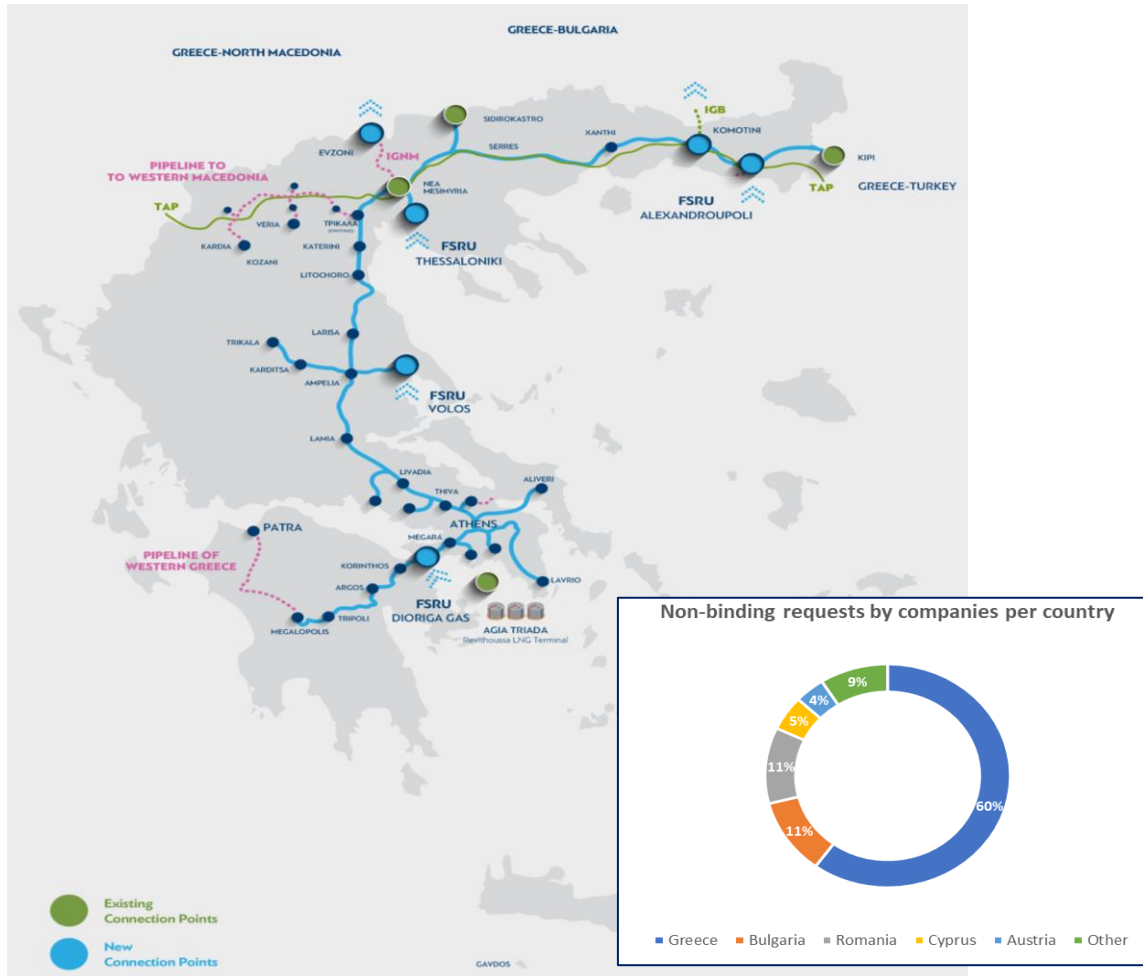
**Tuesday, October 3<sup>rd</sup>, 2023**  
**Time: 11.00 (CET+1)**

For more information regarding the LNG auctions for 2024-2038 please visit the following workshop:  
[DESFA LNG AUCTIONS FOR 2024-2038 VIRTUAL WORKSHOP \(eventora.com\)](#)

# The aggregate non-binding demand was significant at the existing entry and exit points as well as at the new FSRUs



## Illustrative Map



## Key Highlights of the non-binding market test

- Non-binding requests from **27 entities** have been received:
  - 60% of the requested capacity was from Greek companies,
  - 11% from Bulgarian
  - 11% from Romanian companies,
  - 5% from Cyprus,
  - 4% from Austria and minor percentages from North Macedonia, Hungary, Luxembourg, Switzerland, Slovakia, USA, Azerbaijan and Germany

Points (mil Nm <sup>3</sup> /day)	Firm entry	Firm exit	Entry linked	Exit linked
<b>Siderokastro</b>	6.5	12.8		13.7
<b>Nea Messimvria</b>	14.8	4.0		10
<b>Kipi</b>	6.4			
<b>Komotini</b>		5.6		15.6
<b>ARGO FSRU</b>	4.6		36.9	
<b>Thessaloniki FSRU</b>	8.9			
<b>Alexandroupoli FSRU</b>	10.6		2.3	

# The need to upgrade the gas system in the SEE region has led to partnerships among TSOs in the region



## Illustrative Map



## Key Highlights

- **The Vertical Corridor MoU** was signed on December 1st in the context of the 22nd World LNG Summit between **DESFA (Greece), Bulgartransgaz (Bulgaria), Transgaz (Romania), FGSZ (Hungary), ICGB (Bulgaria) and Gastrade (Greece)** with the purpose of their mutual cooperation for the realization of the **vertical corridor**, which will enable bi-directional flows of natural gas from North to South and from South to North, mainly through the Trans-Balkan pipeline
- **The Regional TSOs cooperation continued in Karpacz (Poland)**, where the Economic Forum took place, during which, **discussions focused** mainly on the **LNG and pipeline infrastructure development in the region**
- In September, **DESFA organized in Thessaloniki meeting** of all promoters plus Slovak TSO, where **TSOs presented their recent efforts and plans along the route** focusing on satisfying the interest presented during the non-binding market tests
- Worth noting that there is a **lot of work to be done to further enhance the current situation of the region's security of supply and strengthen market integration** with the development of cross-border projects

**Ευχαριστώ πολύ!**



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Επικεφαλής Στρατηγικού Σχεδιασμού

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Νοέμβριος 2023